

structure displays a laminated panel; each said laminated panel being formed of a series of elongated vertical planks secured edgewise to one another and having upper and lower sides thereof adhesively joined to said upper and lower chords.

3. A structural wooden joist as defined in claim 2, wherein each said connector member at each opposite end of said web structure is adhesively joined to a chord member and to an innermost plank of said laminated panel.

4. A structural wooden joist as defined in claim 1, wherein said connector members of said web structure have upper and lower edges secured to said chords by finger joints.

5. A structural wooden joist as defined in claim 2, wherein said planks of said connector members and of said laminated panels are glued edgewise to one another.

6. A wooden structural joist as defined in claim 1, wherein said web structure further includes a central region free of connector members.

7. A structural wooden joist as defined in claim 6, further comprising a laminated panel structure in said central region; said panel structure defining an uninterrupted surface having opposite lower and upper sides adhesively joined to said lower and upper chords respectively; said panel structure of said central region being formed of a series of vertical planks secured edgewise to one another.

8. A structural wooden joist as defined in claim 7, wherein said planks are glued edgewise to one another.

9. A structural wooden joist as defined in claim 1, wherein said planks are made of kiln dry wood.

10. A structural wooden joist as defined in claim 9, wherein said wood is selected from the group including fir, spruce and pine.

11. A structural wooden joist as defined in claim 1, wherein fibres in said planks extend in the longitudinal direction of said planks.

12. A structural wooden joist as defined in claim 1, wherein each branch of said connector member extends obliquely at about 35° relative to said chords for a joist having a height of about 9.25 inches.

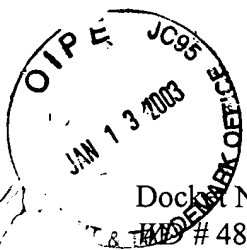
13. A structural wooden joist as defined in claim 1, wherein each branch of said connector member extends obliquely at about 42° relative to said chords for a joist having a height of about 11.25 inches.

14. (New) A structural wooden joist, comprising:

- a first elongate chord;

- a second elongate chord spaced apart from the first chord;

- a web structure joining the first chord and the second chord and forming openings between the first chord and the second chord, the web structure including a series of V-shaped arrangements comprising two connector members, each connector member comprising a first plank and a second plank, the first plank having a first side, a first end, and a second end, second plank having a second side, a third end and a fourth end, the first side being adhesively secured to the second side, the first and third ends being adhesively secured to the first chord, and the second and fourth ends being adhesively secured to second chord.



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**Clean Version of Pending Claims**

A STRUCTURAL WOODEN JOIST

Applicant: Robert Veilleux et al.

Serial No.: 09/836,014

1. (Amended) A structural wooden joist comprising:

- a) an elongated lower chord;
- b) an elongated upper chord in a spaced apart generally parallel opposed relation to said lower chord; and
- c) an openwork web structure joining said chords; said web structure comprising a series of connector members formed of inclined branches and adhesively secured to said lower and upper chords; each said inclined branch of said connector members being formed of at least two planks having contiguous sides adhesively joined to one another; said connector members forming V-shaped structural elements with one connection to said lower chord and two connections to said upper chord; said structural elements defining a series of triangular openings in said web structure.

2. A structural wooden joist as defined in claim 1, wherein each said opposite ends of said web structure displays a laminated panel; each said laminated panel being formed of a series of elongated vertical planks secured edgewise to one another and having upper and lower sides thereof adhesively joined to said upper and lower chords.

3. A structural wooden joist as defined in claim 2, wherein each said connector member at each opposite end of said web structure is adhesively joined to a chord member and to an innermost plank of said laminated panel.

4. A structural wooden joist as defined in claim 1, wherein said connector members of said web structure have upper and lower edges secured to said chords by finger joints.

5. A structural wooden joist as defined in claim 2, wherein said planks of said connector members and of said laminated panels are glued edgewise to one another.

6. A wooden structural joist as defined in claim 1, wherein said web structure further includes a central region free of connector members.

7. A structural wooden joist as defined in claim 6, further comprising a laminated panel structure in said central region; said panel structure defining an uninterrupted surface having opposite lower and upper sides adhesively joined to said lower and upper chords respectively; said panel structure of said central region being formed of a series of vertical planks secured edgewise to one another.

8. A structural wooden joist as defined in claim 7, wherein said planks are glued edgewise to one another.

9. A structural wooden joist as defined in claim 1, wherein said planks are made of kiln dry wood.

10. A structural wooden joist as defined in claim 9, wherein said wood is selected from the group including fir, spruce and pine.

11. A structural wooden joist as defined in claim 1, wherein fibres in said planks extend in the longitudinal direction of said planks.

12. A structural wooden joist as defined in claim 1, wherein each branch of said connector member extends obliquely at about 35° relative to said chords for a joist having a height of about 9.25 inches.

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13. A structural wooden joist as defined in claim 1, wherein each branch of said connector member extends obliquely at about  $42^{\circ}$  relative to said chords for a joist having a height of about 11.25 inches.

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14. A structural wooden joist, comprising:

a first elongate chord;

a second elongate chord spaced apart from the first chord;

a web structure joining the first chord and the second chord and forming openings

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between the first chord and the second chord, the web structure including a series of V-shaped arrangements comprising two connector members, each connector member comprising a first plank and a second plank, the first plank having a first side, a first end, and a second end, second plank having a second side, a third end and a fourth end, the first side being adhesively secured to the second side, the first and third ends being adhesively secured to the first chord, and the second and fourth ends being adhesively secured to second chord.

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